

TABLE A-3. Relative standard error for estimates of all R&D and percentage of estimates attributed to certainty companies, by state: 2006

State	All R&D (\$millions)	Relative standard error (%)	% of estimate from certainty companies
United States	247,669	0.8	91.5
Alabama	1,835	1.0	88.0
Alaska	49 <sup>e</sup>	11.1	34.1
Arizona	3,590	0.7	92.4
Arkansas	285	3.1	67.1
California	58,424	0.5	93.3
Colorado	4,657	1.0	90.3
Connecticut	8,273	0.4	96.0
Delaware	1,446	0.5	95.8
District of Columbia	276	13.6	62.4
Florida	4,139	2.5	80.1
Georgia	2,786	1.8	82.3
Hawaii	155	3.8	70.6
Idaho	625	0.7	92.4
Illinois	10,765	0.9	91.3
Indiana	4,858	0.5	93.2
Iowa	1,055	1.1	86.2
Kansas	2,064 <sup>i</sup>	0.6	93.4 <sup>i</sup>
Kentucky	839	1.4	84.1
Louisiana	367	4.8	60.9
Maine	253	1.9	79.3
Maryland	3,421	2.0	82.2
Massachusetts	15,562	0.5	93.4
Michigan	16,477	0.4	95.5
Minnesota	6,296	0.6	92.9
Mississippi	231	2.8	72.9
Missouri	2,675	1.2	87.6
Montana	103 <sup>i</sup>	3.3	72.6 <sup>i</sup>
Nebraska	447	1.9	80.9
Nevada	535	2.6	77.6
New Hampshire	1,774 <sup>i</sup>	0.6	92.5 <sup>i</sup>
New Jersey	14,606	0.6	93.9
New Mexico	676	1.0	87.5
New York	9,518	1.9	86.0
North Carolina	5,486	0.7	91.0
North Dakota	120	2.4	77.6
Ohio	6,852	0.9	88.9
Oklahoma	474	2.9	71.4
Oregon	3,419	0.5	93.4
Pennsylvania	9,819	0.8	91.5
Rhode Island	1,330 <sup>i</sup>	0.4	95.6 <sup>i</sup>
South Carolina	1,396	1.1	89.3
South Dakota	95	2.7	68.3
Tennessee	1,428	1.6	83.3
Texas	13,334	1.0	89.6
Utah	1,274	1.4	85.1

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State	All R&D (\$millions)	Relative standard error (%)	% of estimate from certainty companies
Vermont	360	0.8	90.1
Virginia	4,816	2.2	81.8
Washington	11,320	0.4	95.4
West Virginia	221	1.9	82.1
Wisconsin	3,020	1.0	88.0
Wyoming	27 e	7.0	40.3
Undistributed funds	3,814 i	0.0	100.0 i

e = estimated, more than 50% of cell value is imputed due to raking of state data; i = more than 50% of the value is imputed.

NOTES: A description of the standard error of estimate is given in the technical notes in appendix A. The percentage (or relative) standard errors may be converted to standard errors of estimate by multiplying the percentages shown by the associated estimates. For example, the relative standard error of estimate for United States, all R&D is shown as 0.8%, and the associated R&D estimate is shown as \$247.7 billion. The standard error of estimate is 0.008 times \$247.7 billion, or \$2.0 billion. Certainties are companies whose probability of selection is one based on prior-year R&D expenditures equal to or greater than \$3 million as well as other companies included in the sample for analytical purposes (analytical certainties). Noncertainties are companies whose probability of selection is less than one. For definitions and more information about year-to-year comparability of the statistics, see technical notes and survey methodology.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Industrial Research and Development: 2006.